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GEOPHYSICAL REPORT  
ON THE  
GOOSLY LAKE PROPERTY  
Omineca Mining Division  
British Columbia

for

NORMINE RESOURCES LTD.

by

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## SUMMARY

An integrated geophysical program has been completed on the Goosly Lake project of Normine Resources Ltd.

The purpose of the surveys was to map shallow subsurface geology and locate any areas of sulphide mineralization which may host silver values.

Induced polarization was run to locate areas of disseminated sulphides.

VLF was run to give structural information and to locate any massive sulphides within disseminated zones.

Magnetics were used to map subsurface geology. Three discreet chargeability anomalies were located and probably relate to pyritized alteration zones within the volcanics. No major structural control was outlined. A magnetic high on the east grid cuts off an I.P. anomaly and indicates an intrusive spatially related to the sulphide zone.

## INTRODUCTION

During June and early July of 1985, a Geophysical program was run on the Goosly Lake property of Normine Resources Ltd.

The purpose of these surveys was to map shallow subsurface geology and to locate any areas of sulphide mineralization under the overburden cover.

The survey area comprised two grids, denoted East Grid and West Grid (figure 2) consisting of 10.55 and 14.15 km respectively. The grids consisted of line spacings of 200 metres and station intervals of 25 metres. Cross lines were oriented at 130 degrees to intersect expected structures at right angles.

Time domain I.P. and resistivity, VLF and magnetics were run on the grid areas. The I.P. and magnetics surveys were carried out by Peter Walcott and Associates of Port Coquitlam. The VLF was carried out by Normine Resources personnel. Supervision and interpretation were carried out by the author.

## LOCATION AND ACCESS

The Goosly Lake property is situated 30 km south-east of the municipality of Houston in west central British Columbia, (figure 1). The geographic centre of the claims is at latitude 54.12' north and longitude 126.23' west.

Houston is on Provincial Highway 16 and the northern C.N. rail line. The town of Smithers, 64 km north-west of Houston has daily scheduled airline service from Vancouver.

## LOCATION AND ACCESS - (Cont'd.)

Access to the property is by 38 km of gravel road linking Houston with the Equity mine. Old logging roads, some of which require 4-wheel drive vehicles, provide access to the north and east parts of the property (figure 2).

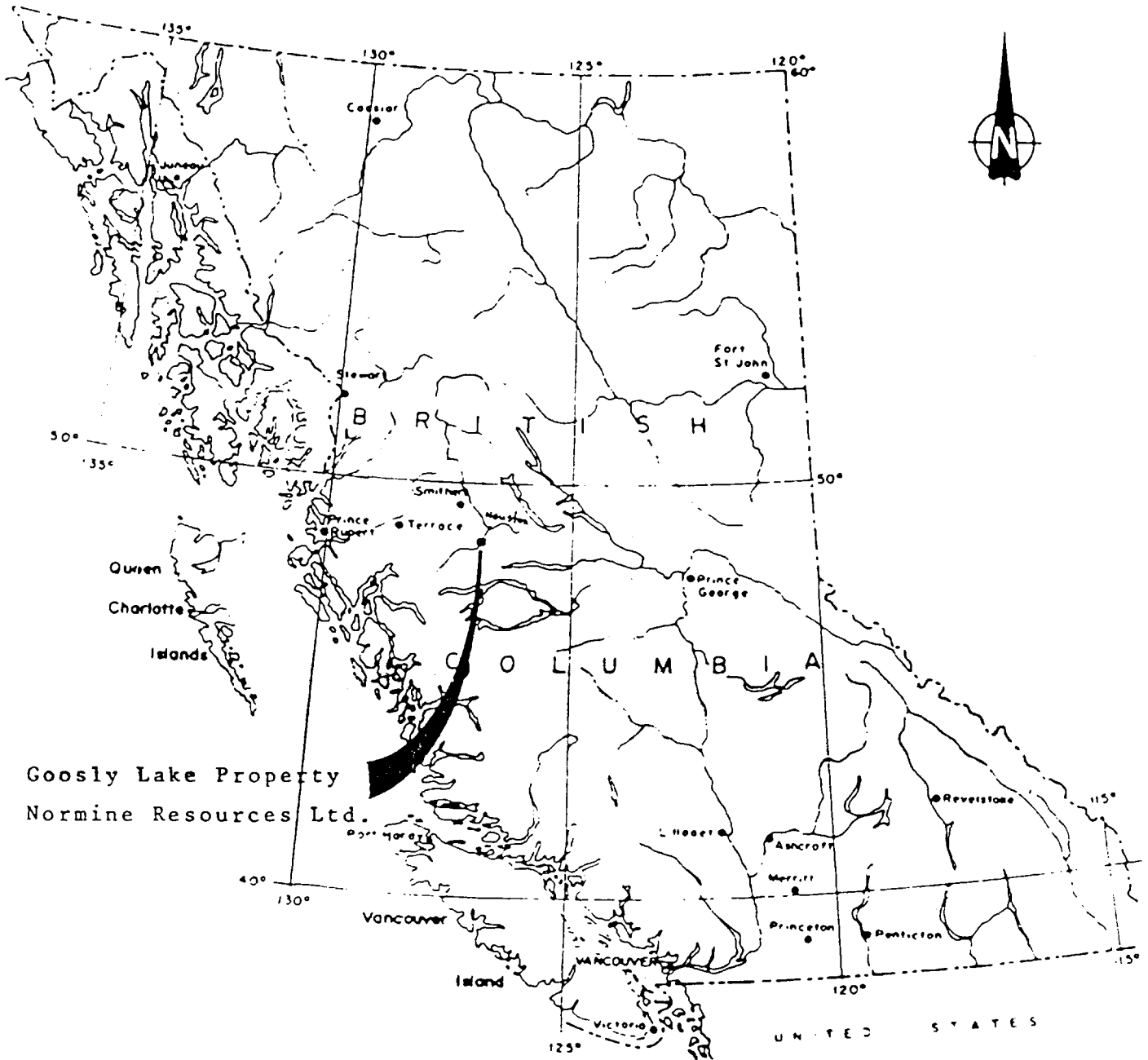
## MINERAL PROPERTY

The Goosly Lake property consists of 8 modified grid and 4 2-post mineral claims comprising the equivalent of 142 units (figure 2) in the Omineca Mining Division.

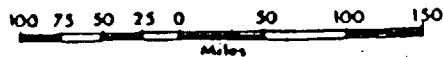
These claims are believed to have been located in accordance with procedures specified in the Mineral Act Regulations for the Province of British Columbia. The writer did not examine claim posts or lines during the visit to the property.


Details of mineral claims are as follows:

<u>Name of Claim</u>	<u>Units</u>	<u>Record Number</u>	<u>Expiry Date</u>
Tet 1	1	6073	March 6, 1985
Tet 2	1	6074	" " "
Tet 3	1	6075	" " "
Tet 4	1	6076	" " "
Colin	18	6635	September 19, 1985
Dave	18	6636	" " "
Bob	15	6637	" " "
Ken	15	6638	" " "
Gold	18	6639	" " "
Morning	18	6640	" " "
Sept 1	18	6662	" " "
Sept	18	6663	" " "



Goosly Lake Property  
 Normine Resources Ltd.










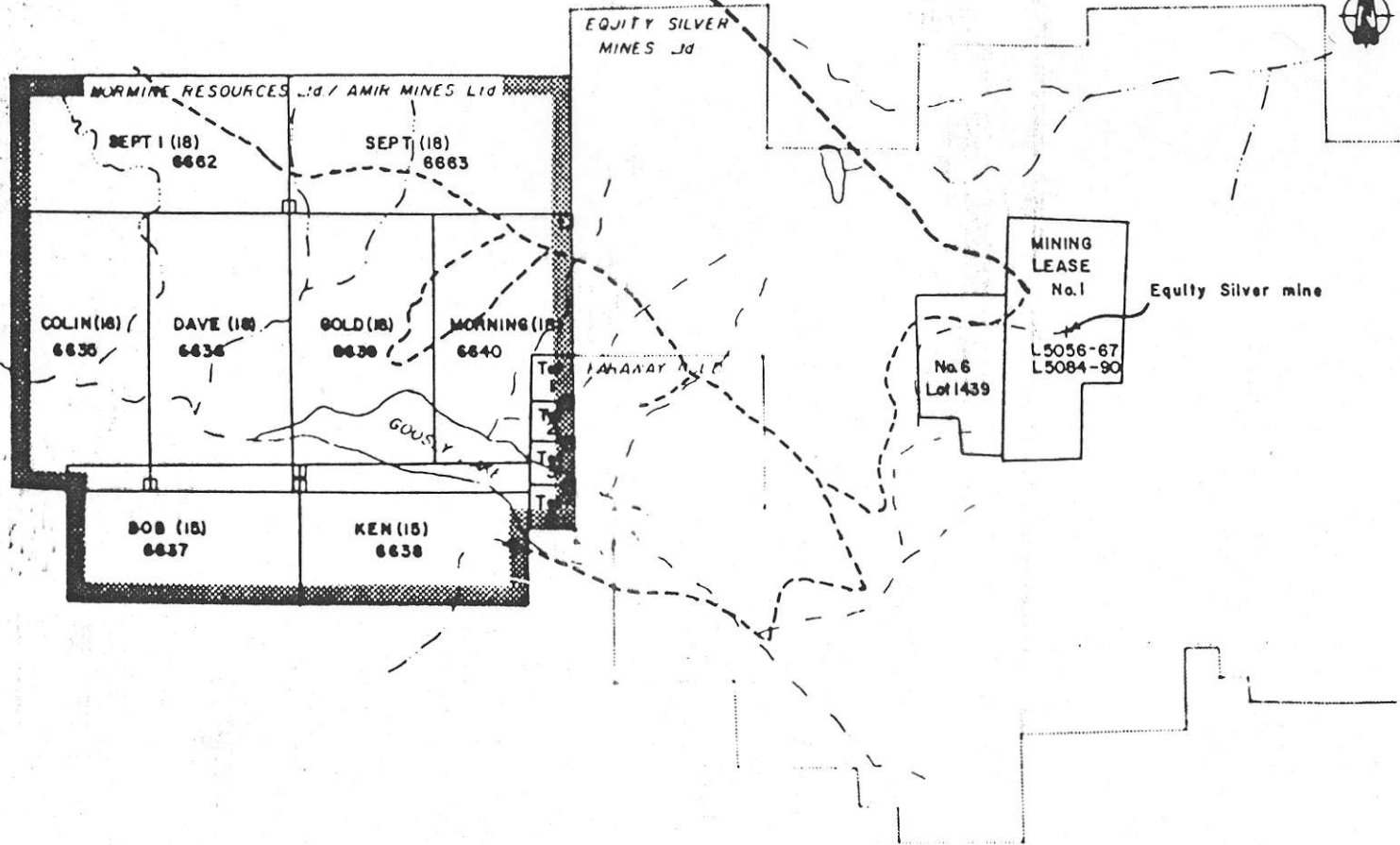
NORMINE RESOURCES Ltd. Goosly Lake, B.C.	
Goosly Lake Property LOCATION MAP	
DATE:	JOB NO.:
APPROVED BY:	FIG. NO.:
 <b>BEMA INDUSTRIES LTD.</b>	

25 km  
to Houston B.C.

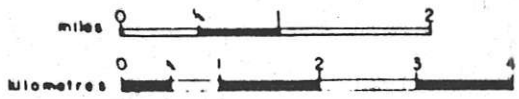
126°15'

# LEGEND

-  STREAM
-  CLAIM BOUNDARY
-  CLAIM OUTLINE
-  LEGAL CORNER POST
-  DAVE (18)  
6636 CLAIM NAME (no. of units  
RECORD No.
-  IMPROVED GRAVEL ROAD
-  GRAVEL ROAD



SCALE 1:50000



FROM: B.C. GOVERNMENT CLAIM MAP 92L

126°15'

**NORMINE RESOURCES Ltd.**  
GOOSLY LAKE, B.C.

## CLAIM LOCATION MAP

DATE 30/1/85	JOB NO
REVISED BY	FIG NO 2

 **BEMA INDUSTRIES LTD.**

## GEOLOGY

The Goosly Lake claims are situated on an upland plateau of moderate relief. Elevations range from about 900 metres at Goosly Lake to 1400 metres in the north east. The grid areas are below the break in slope and gently slope to the lake.

Geology for the grid area is covered by overburden. However, two percussion drilling programs in the region adjacent to the property intersected barren Goosly Lake volcanics overlying altered dacites with pyrite content of 5-10%. For further information on the local and regional geology, the reader is referred to reports by Carter, 1985 and Nordin, 1985.

## GEOPHYSICS

Three geophysical surveys were run over the grid areas. The logistics and instrumentation of these surveys are described.

### I.P. and Resistivity

A Hunttec 2.5 kw transmitter and Hunttec Mark 4 receiver was used. ~~The transmitter operates in the time domain~~ and has a 2 second on, 2 second off cycle. The receiver samples the decay curve of the transmitted current, with a delay time of 200 milliseconds and an interval time of 1000 milliseconds. Chargeability is recorded according to the Newmont standard.

A pole-dipole electrode array was utilized, with an "A" spacing of 50 metres and "N"=1 and 2.



## GEOPHYSICS - (Cont'd.)

The purpose of the survey was firstly to delineate any zones of increased chargeability near surface, and secondly to locate any massive conductive zones.

Data is presented as contoured  $n=1$  and  $n=2$  plan maps for chargeability and resistivity data.

### Magnetics

An EDA Omni mag was used as a base recorder and a Scintrex proton precession and GSM proton precession mag were used as field units. The field data was reduced for diurnal drift and magnetic activity by comparing the field data to the base data and removing any base fluctuations. Data is presented as profiles, as line spacings of 200 metres are too wide to contour reasonably.

### VLF

A phoenix VLF-2 unit was used. The VLF -2 measures the dip angle and field strength of the horizontal VLF frequencies. Dip angle and field strength were recorded for Seattle and Cutle at 25 metre intervals. However, due to sampling problems created by line spacing and direction, only Seattle data was plotted.

VLF - (Cont'd.)

Data is presented as Fraser Filtered dip angle contours using the Crone convention (s and e are -). Because of a total lack of information contained, the field strength data was not plotted.

## RESULTS

### West Grid

The most elucidating information on this grid is provided by the n=2 chargeability data. This outlines a twice background anomaly crossing the grid from line 10+00N/19+00E to line 20+00N/23+00E. This anomaly is generally 300-350 metres wide and trends roughly 050. It is divided into two lobes with centres at 10+00N/19+00E and 18+00N/22+00E respectively.

N=1 chargeability data shows similar spatial relationships. On line 10+00N, c=1 values are greater than c=2 values, thus indicating a very shallow source. On line 18+00N, this is reversed indicating a source at greater depth (30-50 metres). An offset in the n=1 and n=2 data towards the current electrode for deeper data may indicate an east dip to the polarized body.

Both the resistivity data and the VLF conductivity data indicate very low relief and no major conductive structures. The VLF appears to mimic the edges of the chargeability zones and probably relates to small changes in the conductivity across these contacts. The fact that none of the I.P. resistivity lows

## RESULTS - West Grid (Cont'd.)

correspond to VLF conductors or I.P. highs indicates that the source of the polarization response is not forming a circuit, it is disseminated. A weaker response at line 16+00N/29+00E may also be of interest. The magnetics does not appear to provide any useful information except on line 22+00N where a magnetic low correlates roughly with a resistivity low.

## East Grid

The East grid also shows an intriguing chargeability anomaly. The zone is centred at 12+00N/44+50E and trends 050 to 060. The chargeability values are twice background and lie within an area of lower resistivity which covers the entire western portion of the grid. A magnetic high trends 130 and lies along the northern fringe of the I.P. high. This may be caused by a Gabbro or Monzonite intrusive. No conductive zones are evident from the VLF and resistivity data. The n=2 chargeability data is higher than the n=1 data, indicating a depth to the polarized body of perhaps 30 metres. The source here is again a disseminated material. The small anomaly at 12+00N/49+00E also lies on the edge of the magnetic signature which is likely an intrusive.

## CONCLUSIONS

Three strong discreet chargeability anomalies have been located. By the absence of VLF conductive traces and I.P. resistivity lows, there appears to be no electromagnetic targets associated with these zones. The anomalies on the west grid do appear to be delineated as a lower resistivity area by the VLF.

The anomaly on the east grid is associated with the flank of a magnetic high which is probably related to an intrusive body.

The zones of interest are most likely areas of increased sulphide content as disseminations, presumably in the Mesozoic rocks.

The anomalies of interest are centred at:

West Grid - 10+00N/19+00E  
          19+00N/22+00E

East Grid - 12+00N/44+50E

All three bodies are less than 20 metres below surface.

## RECOMMENDATIONS

It is recommended that these zones of increased polarization be tested by a program of percussion drilling on a systematic basis to attempt to trace any zones of silver mineralization within the sulphide rich areas.

ALAN WYNNE  
GEOPHYSICIST

CERTIFICATE

I, Alan J. Wynne, do hereby certify that:

1. I am a Consulting Geophysicist resident at 8573 Ebor Terrace, Sidney, B.C.
2. I am a graduate of the University of British Columbia with B.Sc. (1976).
3. I have practised my profession in North America for the past 9 years.
4. I have no direct or indirect interest in the Goosly Lake mineral claims described in this report, or in either Amir Mines Ltd. or Normine Resources Ltd.

Sidney, B.C.

July 29, 1985.